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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,786	03/30/2001	Lalit Merani	04073P014	7424

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EXAMINER

ABELSON, RONALD B

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 05/22/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/823,786

Applicant(s)

MERANI ET AL.

Examiner

Ronald Abelson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 - 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art AAPA in view of Morris (6,477,144).

AAPA teaches an apparatus (fig. 1A), comprising nodes (fig 1A box 101a, 105) that process data having a data rate corresponding to the highest speed managed by the node (fig. 1A OC-12).

AAPA is silent on the nodes having a scheduling cycle, the scheduling cycle partitioned into amounts of data such that one of the partitioned amounts of data serviced by the scheduling cycle corresponds to a data rate that corresponds to a highest speed grade managed by the node, as specified in claims 1-4; and on the use of circular linked lists, as specified in claims 3-4.

Morris teaches a node having a scheduling cycle (fig. 6 box 62), as specified in claims 1-4; for determining a scheduling

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cycle, the scheduling cycle partitioned into amounts of data such that one of the partitioned amounts of data serviced by the scheduling cycle corresponds to a data rate that corresponds to a highest speed grade managed by the node (fig. 6: Class a, col. 3 line 58 - col. 4 line 2), as specified in claims 1-4; the node has a memory/array (col. 8 lines 13-20) that maintains a data entry for each user / class (col. 78 lines 1-11) managed by the node, as specified in claims 3 and 4; the memory having a circular linked list user managed by the node, the memory having a circular link list for each speed grade / class managed by the node where each of the circular linked lists circularly links those of the users who receive service at the same speed grade / class (col. 8 lines 13-20), as specified in claims 3 and 4; and the first data entry having a first data element that points to a next data entry within the first data entry's circular linked list (head, pointer, col. 8 lines 13-20), as specified in claim 4.

Therefore it would have been obvious to one of ordinary skill in the art, having both AAPA and Morris before him/her and with the teachings [a] as shown by AAPA, an apparatus, comprising nodes that process data having a data rate corresponding to the highest speed managed by the node, and [b] as shown by Morris, a means for processing data arriving at a

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node where the data belong to different classes with different data rates, to be motivated to modify the system of AAPA by inserting the data rate scheduler of Morris at each of the nodes of AAPA (AAPA: fig. 1A). This would improve the system by providing an algorithm that takes into account both class priority and delay time when scheduling data.

Prior art is of record

3. The prior art is of record but not relied upon in the office action. Devara (US 2002/0144260) teaches a device (fig. 2 box 202, 203) for determining a scheduling cycle, the scheduling cycle partitioned into amounts of data such that one of the partitioned amounts of data serviced by the scheduling cycle corresponds to a data rate that corresponds to a highest speed grade managed by the node (pg. 2 [0023]). Note, for each stream, the data estimator schedules the data stream based upon the available bandwidth and the required/desired bit rate.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (703) 306-5622. The examiner can normally be reached on M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (703) 308-5463. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

ra

Ronald Abelson
Examiner
Art Unit 2666

May 12, 2003

Seema S. Rao
SEEMA S. RAO 5/19/03
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600